Technical Data Sheet

Alcryn 2070NC INJ NAT

Melt Processable Rubber

Product Description

Alcryn 2070NC INJ NAT is a Melt Processable Rubber material and is typically used in Blow Molding, Extrusion, Injection Molding, Vacuum Forming applications. Features include: Fast Molding Cycle, High Flow, High Heat Resistance, Noise Damping, Oil Resistant, Ozone Resistant, Recyclable Material, and Vibration Damping.

Processing Method	Blow Molding; Extrusion; Injection Molding; Vacuum Forming
Attribute	Fast Molding Cycle; High Flow; High Heat Resistance; Noise Damping; Oil Resistant; Ozone Resistant; Recyclable Material; Vibration Damping
Forms	Pellets
Appearance	Natural Color
Application	Cable Jacketing; Coating Applications; Fabric Coatings; Flexible Grips; Gaskets; General Purpose; Handles; Hose; Overmolding; Profiles; Seals; Tubing; Weatherstripping; Wire & Cable

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density	1.20	g/cm³	ISO 2781
Density - Specific Gravity	1.20	g/cm³	ASTM D471
Change in Volume			
(in Reference Fuel B, 27 °C, 168 hr)	22	%	ISO 1817
(in Reference Fuel B, 27 °C, 168 hr)	22	%	ASTM D471
(in ASTM #1 Oil, 100 °C, 168 hr)	-16	%	ISO 1817
(in ASTM #1 Oil, 100 °C, 168 hr)	-16	%	ASTM D471
(in IRM 903 Oil, 100 °C, 168 hr)	18	%	ASTM D471
(in IRM 903 Oil, 100 °C, 168 hr)	18	%	ISO 1817
(in Water, 100 °C, 168 hr)	7.0	%	ISO 1817
(in Water, 100 °C, 168 hr)	7.0	%	ASTM D471
Melt Viscosity, (190 °C, 300 sec^-1)	465	Pa·s	ASTM D3835
Mechanical			
Tensile Stress at 100%			
(1.90 mm)	4.00	MPa	ASTM D412
(1.90 mm)	4.00	MPa	ISO 37
(125 °C, 1.90 mm)	3.50	MPa	ASTM D573
(125 °C, 1.90 mm)	3.50	MPa	ISO 188

Torsion Modulus			
(24 °C, 1.9 mm)	2.2	MPa	ASTM D1043
Compression Molded			
(-20 °C, 1.9 mm)	8.5	MPa	ASTM D1043
Compression Molded			
Tensile Set	9	%	ASTM D412
Clash-Berg Modulus, (-40 °C)	68.9	MPa	ASTM D1043
Tensile Strength at Yield			
(1.90 mm)	8.60	MPa	ASTM D412
(125 °C, 1.90 mm)	5.50	MPa	ASTM D573
Tensile Stress at Yield			
(1.90 mm)	8.60	MPa	ISO 37
(125 °C, 1.90 mm)	5.50	MPa	ISO 188
Tensile Strain at Break			
(1.90 mm)	400	%	ISO 37
(125 °C, 1.90 mm)	220	%	ISO 188
Tensile Elongation at Break			
(125 °C, 1.90 mm)	220	%	ASTM D573
(1.90 mm)	400	%	ASTM D412
Tear Strength, (Die C, 1.90 mm)	29.7	kN/m	ASTM D624
Impact			
Ductile/Brittle Transition Temperature	-85	°C	ASTM D746
Hardness			
Change in Shore Hardness in Air, (Shore A, 125 °C, 168 hr)	-3.0		ISO 188
Shore Hardness, (Shore A, 1.90 mm, Compression Molded)	68		ISO 868
Change in Durometer Hardness in Air, (Shore A, 125 °C, 168 hr)	-3.0		ASTM D573
Durometer Hardness, (Shore A, 1.90 mm, Compression Molded)	68		ASTM D2240
Additional Information			
Compression Set			
(24 °C, 22 hr, Method B)	16	%	ASTM D395
(100 °C, 22 hr, Method B)	64	%	ASTM D395
(24 °C, 22 hr)	16	%	ISO 815
(100 °C, 22 hr)	64	%	ISO 815
Taber Abrasion Resistance, (CS-17 Wheel, 1000 g, 1000 Cycles)	9.00	mg	ASTM D1044
UL Information			
UL File Number, (USA)	E51193		

Extrusion Parameters	Nominal Value	Units
Cylinder Zone 1 Temp.	132 to 138	°C
Drying Time	3.0 to 4.0	hr
Melt Temperature	171 to 182	°C
Suggested Max Moisture	<0.020	%
Die Temperature	163 to 177	°C
Cylinder Zone 3 Temp.	143 to 149	°C
Drying Temperature	82 to 93	°C
Cylinder Zone 2 Temp.	138 to 143	°C
Cylinder Zone 4 Temp.	157 to 163	°C